Author Index

Page numbers in italics refer to authors of books reviewed.

Aguirre, A. I., 145–154
Albornoz, J., 457–462
Alcorta, E., 457–462
Aouar, A., 39–47
Arana, P., 15–24
Arlett, C. F., (Ed.), *474–475*
Ashburner, M., (Ed.), *155*
Austin, R. B., *476–477*

Baeza, F., 81–85
Barbancho, M., 443–450
Barrett, S. C. H., 49–55
Barton, N. H., 221–228
Biémont, C., 39–47, 167–172
Brown, A. H. D., 49–55
Bumstead, N., 25–30
Burnet, L., *477*
Butlin, R. K., 203–212, 213–220

Cabrero, J, 57–58, 341–343, 409–412
Calandar, R., (Ed.) *315*
Camacho, J. P. M., 57–58, 341–343, 409–412
Carson, H. L., (Ed.), *155*
Casselton, L. A., (Ed.), *156–157*
Cavalier-Smith, T., (Ed.), *158–159*
Cermeno, M. C., 1–4
Chapman, A. B., (Ed.), *314–315*
Christiansen, F. B., *317–318*
Clarke, B., 307–313
Clegg, M. T., 5–14
Cohan, F. M., 425–433
Coombs, D. T., 257–266

Day, T. H., 203–212, 213–220
de la Torre, J., 345–349
de Miranda, J. R., 279–288
Dixon, F. J., (Ed.), *318*
Dobson, R. K., 119–126
Dodds, J. H., (Ed.), *155–156*
Dominguez, A., 457–462
Dorado, G., 443–450
Dronamraju, K. R., *475–476*
Dunwell, J. M., 75–80

Eanes, W. F., 193–201
East, T. M., 59–68
Edwards, M. D., 297–301
Eggleston, P., 279–288
El-Kassaby, Y. A., 173–181
Ennos, R. A., 119–126
Epperson, B. K., 5–14
Estomba, A., 145–154

Feldman, M. W., *317–318*
Ferrer, E., 357–363
Flavell, R. B., *476–477*
Fominaya, A., 357–363
Frankland, J. C., (Ed.), *156–157*
Fraser, M. J., 373–381
Fraser Roberts, J. A., *473–474*
Freeman, B. M., 25–30
Friebe, B., 1–4

Gautier, C., 167–172
Georghiou, G. P., 351–356
Glass, R. E., (Ed.), *316–317*
Godoy-Herrera, R., 321–329
Gold, L., (Ed.), *315*
Golding, G. B., 331–339
Golenberg, E. M., 451–456
Gosálvez, J., 345–349
Gromko, M. H., 435–441

Hayman, D. L., 303–305
Heath, D. J., 69–73, 289–295
Hebert, P. D. N., 391–399
Hedrick, P. W., 161–166, 319
Henriques-Gil, N., 15–24
Henson, I. E., *476–477*
Hewitt, G. M., 59–68, 221–228
Hey, J., 463–471
Hoffmann, A. A., 425–433
Houle, D., 463–471

James, S. H., 401–408
Janson, K., 31–37
Jinks, J. L., 257–266'
Johnson, M. S., 307–313
Jones, J. S., 127–138
Jones, R. N., *472–473*

Karp, A., *472–473*
Kerver, W. J. M., 239–248
Kevles, D. J., *472*
Kincaid, H. K., 365–372
King, B., (Ed.), *319*
Klarenberg, A. J., 383–389
Krolow, K-D., 1–4
Krueger, C. C., 365–372

Lavery, P., 401–408
Leach, C. R., 303–305
López-Fernández, C., 345–349
Lostao, C. M., 145–154
Lowe, H. J. B., *476–477*

McCauley, D. E., 193–201
McLain, D. K., 373–381
Manning, A. C. C., 25–30
Marsden, J. E., 365–372
Martinez de Pancorbo, M. A., 145–154
Mather, K., 267–277
May, B., 365–372
Mazon, L. I., 145–154
Meagher, M. D., 173–181
Messer, L. I., 25–30
Miles, S., 203–212
Moore, D., (Ed.), *156–157*
Mora, W., 321–329
Mousseau, T. A., 103–118
Mukherjee, M., 413–423
Murray, J., 307–313

Navas-Castillo, J., 409–412
Nevo, E., 451–456

Ochman, H., 127–138
Olby, R., *476–477*

Parker, J. S., 87–94
Parkinson, J., 173–181
Parry, J. M., (Ed.), *474–475*
Pasteur, N., 351–356
Pembrey, M. E., *473–474*
Penny, D., (Ed.), *475*
Pilkington, M. D., 203–212
Pineda, M., 443–450
Pison, G., *160*
Pooni, H. S., 257–266
Portlock, F. T., 173–181
Powell, W., 75–80
Puertas, M. J., 81–85
Pühler, A., (Ed.), *156*

Rai, K. S., 373–381
Ramirez, A., 81–85
Raymond, M., 351–356
Rees, H., 139–143
Ridley, M., *157–158*
Robinson, A. S., 95–101
Roff, D. A., 103–118
Rotman, G., 239–248

Salaman, R., *158*
Sánchez, F. J. S., 443–450
Santiago, E., 457–462
Santos, J. L., 15–24
Scharloo, W., 383–389
Selander, R. K., 127–138
Shaw, M. W., 59–68
Shihab, A. F., 69–73, 289–295
Shore, J. S., 49–55
Sikkema, K., 383–389
Skamene, E., (Ed.), *317*
Skibinski, D. O. F., 413–423
Spizek, J., (Ed.), *316–317*
Stuber, C. W., 297–310

Terzaghi, E. A., (Ed.), *475*
Thompson, Elizabeth, A., *314*
Thompson, J. N., (Ed.), *155*
Timmis, K. N., (Ed.), *156*
Torroja, E., 345–349
Troncoso, B., 321–329

Van Delden, W., 183–192
Van Lap, Pham, 95–101
Vega, C., 357–363
Vicario, A., 145–154
Virk, P. S., 257–266

Wallis, G. P., 229–238
Ward, R. D., 413–423
Waser, N. W., 249–256
Watt, I. M., *159–160*
Weber, W. E., *315–316*
Weider, L. J., 391–399
Wendel, J. F., 297–301
Westerman, M., 221–228
White, J., 139–143
Wilkins, A. S., (Ed.), *475*
Wolff, K., 183–192
Wood, D. A., (Ed.), *156–157*
Wrucke, G., *315–316*

Zeller, F. J., 1–4

Index of Species

Page numbers in italics refer to the subjects of the paper.

Abies amabilis, 174
Adalia, 217
  bipunctata, 203
Aedes aegypti, 99
  albopictus, *373–381*
  flavo pictus, 373
  hebrideus, 373–386
  malayensis, 373, 376–377, 379
  pseudoalbopictus 373–381, 388
  pseudoscutellaris, 373–381
  scutellaris, *373–381*
  seatoi, 376, 377
Aegilops squarrosa, *1–4*
Agaricus, 157
Agrobacterium, 155
Agrocybe, 157
Alabama argillacea, 199
Alnus rubra, 174
Alopecurus myosuroides, *303–305*
Alsophila pometaria, 391
Anopheles albimanus, 100
Anopheles culicifacies, 99
Anopheles stephensi, *95–101*
Anticarsia gemmatalis, 199
Asclepias syriaca, *193–201*
Asellus aquaticus, *69–73*, *289–295*
Avena barbata, 191, 451, 454
Avena sterilis, 452

Bacillus licheniformus, 316
Bacillus pumilus, 316
Baetica ustulata, 58
barley cultivars, 75
Betula lutea, 465
Betula papyrifera, 465
Bombina bombina, 222
Bombus appositus, 249
Bombus flavifrons, 249
Bombus impatiens, 6
Bombus pennsylvanicus, 6, 11

Caledia captiva, 222
Cepaea hortensis, *127–138*
Cepaea nemoralis, *127–138*, *145–154*, 311
Chorthippus nevadensis, *57–58*
Chamaecyparis nootkatensis, 174
Chicken, *25–30*
Chlorthippus apicalis, 341, 342
Chorthippus binotatus, *341–343*, *409–412*
Chorthippus brunneus, *341–343*
Chorthippus parallelus, 347, 348
Chorthippus vagans, *341–343*
Cichorium intybus, 11
Cnemidophorus, 236, 237
Coelopa frigida, *203–212*, *213–220*
Colias eurytheme, 294
Coprinus spp, 157
Coprinus cinereus, 157
Coprinus congregatus, 157
Crinipellis permiciosa, 156
Cronartium ribicola, 173
Culex pipiens, *351–356*
Cydia pomonella, 199
Cynosurus cristatus, *119–126*

Danaus plexippus, 199
Daphnia pulex, *391–399*
Delphinium nelsonii, *249–256*
Dendroctonus frontalis, 199
Dendroctonus ponderosae, 199
Diabrotica barbari, 199
Dictyostelium discoideum, 316
Drosophila, 15, 59, 67, 87, 100, *103–118*, 128, *155–160*, 273, 373, 429, 430
  affinis, *463–471*
  alonquin, *463–471*
  ananassae, *118*
  athabasca, *463–471*
  equinoxialis, 199
  hydei, 327
  immigrans, 327
  mouritania, 236
  melanogaster, *39–47*, 67, 105, 110, *167–172*, *213*, *239–248*, *267–277*, *279–288*, *321–329*, *383–389*, *425–433*, *435–441*, *443–450*, *45–462*
  mercatorum, 118
  mimica, 118
  obscura, 119
  pavani, 119
  persimilis, 118, 203, 463
  pseudoobscura, 118, 119, 203, 388, *425–433*, 443, 463
  simulans, 118, *321–329*, 463
  subobscura, 110, 118, 463
  willistonii, 199

Eichhornia crassipes, 55
Eichhornia paniculata, *49–55*
Erica, 146
Escherichia coli, 316
Euchorthippus pulvinatris, 341, 342, 343
Euphydryas chalcedona, 199
Euphydryas editha, 199
Eyprepocnemis plorans, *15–24*

Festuca, 140
Festica pratensis, *303–305*
Flammulina velutipes, 157
Fundulus heteroclitus, 294

Gayophytum, 401
Geomys pinetus, 234

Heliothis viresceus, 199
Helix aspersa, 136, 254
Holcus lanatus, *303–305*
Homo Sapiens, 234
Hordeum bulbosum, 452
Hordenum spontaneum, 451, 452, 454
Hordeum vulgare, *75–80*, 451, 454
Hypericum, 401
Hypochoeris radicata, *87–94*

Ipomoea batatas, 12
Ipomoea cairica, 12
Ipomoea pandurata, 11
Ipomoea purpurea, *5–14*
Ipomoea trichocarpa, 11
Ips calligraphus, 199
Isotoma petraea, 401–408

Lathyrus, 141
Lentinula edodes, 157
Leptinotarsa decemlineata, 199
Leucopogon juniperinus, 407
Liatris crylindraceae, 254
Lilex, 146
Limnoporous canaliculatus, 199
Littorina saxatilis, *31–37*
Locusta migratoria, 60, 61
Lolium, 140
Lolium perenne, 122, 304
Lolium multiflorum, 304
Lucilia cuprina, 100

maize, *297–301*
Metridium senile, 294
Musca autumnalis, 199
Myrmeleotettix maculatus, *59–68*
Mytilis edulis, 294

Nicotiana tabacum, *257–266*

Oedipoda fuscocincta, 341
Oenothera spp., 401
Oenothera complex hybrids, *401–408*
Oenothera lamarkiana, 408
Oenothera organensis, 408
Omocestus bolivari, *341–343*
Omocestus raymondi, 341, 342, 343

Partula suturalis, *307–313*
Peromyscus maniculatus, 234
Petunia sp, *139–143*
Petunia axillaris, 140
Petunia hybrida, 140
Petunia inflata, 140
Petunia parodii, 140
Petunia parviflora, 140, 141
Phalaris coerulescens, *303–305*
Phaseolus lunata, 451
Pieris rapae, 199
pig, 25
Pinus monticola, *173–181*
Pinus ponderosa, 175, 178
Pinus rigida, 175
Pinus strobus, 175
Pinus sylvestris, 119
Pinus taeda, 175
Pissodes strobi, 199
Plantago lanceolata, *183–192*, 254
  major, 183, 190
  pleiosperma, 190
  rugelli, 183
Pleurotus, 157
Podisma pedistris, *221–228*
Polyporus, 157
Porcellio scaber, 72
potato, *158*
Prosimulium fuscum, 199
Prosimulium mixtum, 199
Pseudotsuga menziesii, 174

Quercus itheburensis, 452

rabbit, 25
Raphanus sativa, 11
Rattus, 234
Rhagoletis completa, 199
Rhoeo discolor, 401
Rhytidoponera chalybaea, 199
  confusa, 199
Rubus, 146
rye, 84

Salmo, 232
Salvelinus namaycush, *365–372*
Sceloporus grammicus, 222
Schistocerca gregaria, 224
Schizophyllum, 157
Secale cereale, *1–4*, *81–85*, *303–305*
Secale silvestre, *1–4*
Secale vavilovii, *81–85*
Selasphorus platycercus, 249
Sheep, 25
Solidago, spp. 191
Sorghum bicolor, 75
Spartina pratens, 190
Sphaerona rugicauda, 72
Spodoptera exempta, 199
Spodoptera frugiperda, 199
Stenacatantops angustifrons, 343
Stenobothrus festivus, 341, 342
Streptomyces sp., 316
Streptomyces lavendulae-grasserius, 316

Tetraopes tetraopthalamus, *193–201*
Thuja plicata, 174
Triticum aestivum, 75, *357–363*
Triticum dicoccoides, 451–456
Triticum durum, 1
Triticum turgidum, 1
Triturus cristatus, *229–238*
  cristatus cornifex, *229–238*
  cristatus cristatus, *229–238*
  cristatus dobrogiens, *229–238*
  cristatus karelinii, *229–238*
  marmoratus, 237
Tsuga heterophylla, 174
Turdus ericetorum, *145–154*

Uroderma bilobatum, 222

Wheat, "Chinese Spring", *357–363*

Xenopus, 231, 232, 233, 236, 237
Xenopus laevis, 235

Zea mays, 75
Zoarces viviparus, 69, 72

Subject Index

allozyme inheritance and outcrossing in *Pinus*, 173–181
allozymic differences between shells in *Partula*, 307–313
Amy and *Map* polymorphism in *Drosophila*, 383–389
analysis of competitive interactions in *Drosophila*, 279–288

B-chromosomes, effect of, on spermatogenesis in the grasshopper, 59–68
B-chromosomes, transmission of, in *Secale*, 81–85

changes in genotype frequencies in *Asellus*, 289–295
chiasma frequency and chromosome rearrangement, 87–94
chiasma redistribution in grasshoppers, 409–412
chiasmata, formation of, in interstitial regions, 15–24
chlorpyrifos resistance in *Culex*, 351–356
chromosomal effects in egg laying of *Drosophila melanogaster*, 457–462
chromosome segments, supernumerary, in the grasshopper, 341–345, 409–412
chromosomes in *Petunia*, 136–143
chromosome structure, influence of, on meiotic pairing, 357–363
competitive interactions, analysis of, in *Drosophila*, 279–288
courtship behaviour in *Drosophila*, 435–441
cytological studies in *Anopheles*, 95–101

differences between chromosomal races of grasshoppers, 221–228
differentiation of enzyme loci in *Cepaea*, 127–138
disassortative mating in *Eichhornia*, 49–55
distribution of *Cepaea nemoralis* in Spain, 145–154
divergent times, estimation of, 331–339
DNA content in *Podisma*, 222–228

electrophorectic analysis of lake trout, 365–372
enzyme loci, genetic differentiation at, in *Cepaea*, 127–138
epistasis and linkage of interacting genes, 257–266
ethanol and *Adh* activity in *Drosophila*, 443–450
ethanol tolerance in *Drosophila*, 239–248
expansion of newly founded marine snail populations, 31–37

functional gender of clones and assortative mating, 119–126

gametic lethal systems in *Isotoma*, 401–408
genetic analysis of male courtship behaviour in *Drosophila*, 435–441
genetic control of preferential fertilisation in maize, 297–301
genetic determination of egg laying in *D. melanogaster*, 457–462
genetic differentiation in neighbouring milkweed beetle populations, 193–201
genetic differentiation with Delphinium population, 249–256
genetic divergence under uniform selection, 425–433
genetic drift in *Littorina saxatilis*, 31–37
genetic heterogeneity, measurements of, 167–172
genetic heterozygosity in *Daphina*, 391–399
genetic polymorphism in enzyme systems in *Cepaea*, 127–138
genetic sexing line in *Anopheles*, 95–101
genetics of barley, 75–80
genetic subdivision and coiling in *Partula*, 307–313
genetic transformation of chickens, 25–30
genetic variation between 4 populations of *Plantago*, 183–192

habitat choice in *Drosophila*, 463–471
heritability and covariance in *Drosophila*, 103–118
heteroplasmy, germ line, in *Triturus*, 229–238
highly repeated DNA in *Aedes*, 373–381

immature barley embryos, response of, to culture environment, 75–80
inbreeding in the grasshopper, 57–58
inbreeding, partial, rate of, 161–166
inheritance of chlorpyrifos resistance in *Culex*, 351–356
instability in inbred lines of *Drosophila melanogaster*, 39–47
insertion polymorphism in *Triturus*, 229–238
interchanges forming chiasmata, 15–24
irradiated male gametes in chickens, 25–30
irradiated semen and transformation in chickens, 25–30
isozyme loci in lake trout, 365–372

larval movement in *Drosophila*, 321–329
linkage disequilibria in *D. melanogaster*, 383–389
linkage groups in the *Poaceae*, 303–305
linkage of interacting genes, 257–266

marine snail populations, expansion of, 31–37
mating success in seaweed flies, 203–212, 213–220
mdg-1 polymorphism in *Drosophila*, 167–172
meiotic pairing, influence of chromosome structure on, 357–363
microgeographic genetic heterogeneity in *Daphnia*, 391–399
mobile element in *Drosophila*, 39–47, 167–172
morphological variability in *Plantago*, 183–192
multilocus genotypes in wild emmer wheat, 451–456
multiple substitutions, effect of, on divergence times, 331–339

neutral evolution, simulation of, 413–423
non-random mating in seaweed flies, 213–220
nuclear DNA and chromosome volume in *Petunia*, 139–143
nucleolar competition in tetraploid *Triticales*, 1–4

orientation behaviour of interchanges in the grasshopper, 15–24
origin of supernumerary chromosome segments, 341–343
outcrossing in *Pinus monticoa*, 173–181
outcrossing rates, variation in, Morning Glory, 5–14

PGI polymorphism in *Asellus*, 69–73, 289–295
phenotypes of *Cepaea nemoralis* in Spain, 145–154
phenotypic adaptation of *Drosophila* on various alcohols, 239–248
pollen selection in Morning Glory, 5–14
pollen success and assortative mating, 119–126
polygenic variation, consequences of stabilising for, 267–277
polymorphism in the crested newt, 229–238
population structure in wild emmer wheat, 451–456
population structure of milkweed beetle, 193–201
preferential fertilisation in maize, 297–301

quantifying genetic recombination in chromosomes, 345–349
quantitative genetics and fitness, 103–118

rate of partial inbreeding, 161–166
recombination in polymorphic populations, 345–349
relationship of *Cepaea nemoralis* to selective agents, 145–154
reproductive output, differences in, in *Asellus*, 69–73

seed production in *Pinus*, 179
selection for knockdown resistance to ethanol in *Drosophila*, 425–433
simulation of neutral evolution, 413–423
size of male seaweed flies in relation to mating success, 203–212
spatial genetic heterogeneity in *Delphinium*, 249–256
sperm dysfunction and B-chromosomes in the grasshopper, 59–68
stabilising selection consequences of, for polygenic variation, 267–277
structural *Amy* variants in *Drosophila*, 383–389
supernumerary chromosome segments, 341–343, 409–412
suppression of nucleolar activity in wheat genomes, 1–4
survival of *Drosophila* on food containing alcohol, 239–248

tolerance to ethanol and *Adh* activity in *Drosophila*, 443–450
translocation of dieldrin resistant gene in *Anopheles*, 95–101
transmission of B-chromosomes in *Secale*, 81–85

variability in *Plantago*, 183–192
variation in abundance of DNA in *Aedes*, 373–381
variation in chiasma frequency, 87–94
variation in floral traits in *Eichhornia*, 49–55
variation in outcrossing, 5–14
variation, polygenic, stabilising selection for, 267–277